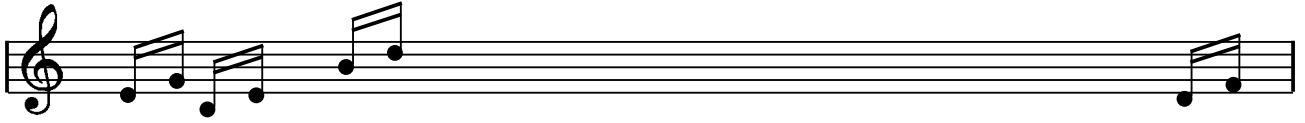# Creek T50

## Operating Instructions



mThank you for purchasing the T50. You are now in possession of a State of the art RDS AM/FM tuner. The T50 is a matching tuner for the 50 & 53 series Creek product range, although it will work very well with any other manufacturers' amplifiers.

The functions and operation of the T50 are deceptively simple for the many features that it offers, which can also be remotely controlled. The following notes are provided to explain all aspects of its design and use.

## T50 FUNCTIONS
## Front panel controls

1.  **Tuning / Pre-sets** station selection, by rotary control knob, is switched by the **Mode** selector.

2.  **Mode** selector push button changes the function of the rotary control from tuning to pre-set station selection and back again.

3.  **Band** push button selects FM, MW and LW for Europe, or FM/AM for North America and countries without LW. Custom frequencies and bands for other locations are factory set, but Creek dealers can re-program them if you have to move to a different zone.

4.  **Search Up / Down** push button tunes up or down automatically, stopping on each usable station and rolling over at band ends.

5.  **Display** push button allows a selection of display brightness settings, from off to fully bright.

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6.  **Store**  allows selected stations to be memorised by the tuner in pre-set channel locations, separately on each wavelength.

7.  **Display window**  contains frequency, channel and centre tuning information, together with all other function status in a highly visible green display.

8.  **Infra-Red sensor**  can receive remote control (RC5) instructions of all functions (except Display).  See Remote Control notes on page 7 of this manual.

9.  **Standby**  switches the tuner from On to Standby and back again..

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### *FREQUENCY RANGES AVAILABLE FOR EUROPEAN MODEL:*

| | | | | |
|----|------|---|------|-----------------------------------------|
| **FM** | 87 | - | 108 | MHz | 50 kHz increments manual, 100 kHz scanned |
| **MW** | 522 | - | 1611 | kHz | 9 kHz increments |
| **LW** | 144 | - | 288 | kHz | 9 kHz increments |

### *FREQUENCY RANGES FOR THE NORTH AMERICAN MODEL:*

| | | | | |
|----|------|---|------|-----------------------------------------|
| **FM** | 87 | - | 108 | MHz | 200 kHz increments manual |
| **AM** | 530 | - | 1710 | kHz | 10 kHz increments |

### *FREQUENCY RANGES FOR JAPANESE MODEL:*

| | | | | |
|----|------|---|------|-----------------------------------------|
| **FM** | 76 | - | 90 | Mhz | 50 kHz increments manual,  100kHz scanned |
| **AM** | 522 | - | 1611 | kHz | 9 kHz increments |

### *FREQUENCIES AVAILABLE ON MODEL FOR THE REST OF THE WORLD:*

| | | | | |
|----|------|---|------|-----------------------------------------|
| **FM** | 87 | - | 108 | Mhz | 50 kHz increments manual,  100kHz scanned |
| **AM** | 522 | - | 1611 | kHz | 9 kHz increments |

# Rear Panel

# CONNECTING THE T50

## Power supply requirements

To operate the tuner it is necessary to first connect the unit to the mains supply via the power cord supplied. There is an IEC mains connector on the rear panel that contains a protection fuse and mains switch. The power must be turned On (1) or Off (0) from here. After switching On the tuner will be in Standby and pressing the STANDBY button on the front panel will wake it up.

The power cord should be connected to the tuner and to a domestic mains socket carrying 220-240V AC 50Hz or 110-120V AC 60Hz, depending on country of use.

Should it be necessary to replace the fuse, ensure that you use the same type as specified on the rear panel.

ie: **5 x 20mm cartridge type**

   **T 500 mA surge resisting for 220-240V 50Hz AC,**

   **T 1 A surge resisting for 110-120V 60Hz AC**

   **T 1A surge resisting for 100V (Japan).**

## Antenna requirements

To obtain the best quality FM signal, in stereo with low background noise, it is necessary to use a good antenna (aerial), preferably mounted on a roof of a building, or in an attic or loft. A 75 ohm co-axial cable should be used to bring the radio signal to the tuner. Use a good quality 75 ohm co-ax plug to connect the radio signal into the rear panel socket marked: *FM antenna 75 ohms.* In some parts of the world 300 ohm balanced feeder cable is more popular, in which case it should be connected to the 300 ohm terminals only.

If it is not possible to use an outdoor aerial, a balanced 300 ohm indoor T-antenna will give reasonable results when connected to the 300 ohm terminals. Note that the direction of the T-piece with respect to the transmitter site will affect the strength and quality of reception, giving more or less noise, especially on stereo signals.

The AM part of the radio will work very well using a single wire. Pug the 3 metre length of thin stranded wire provided into the terminal marked AM on the back panel. Adjust its position with respect to the direction of the transmitter to improve reception.
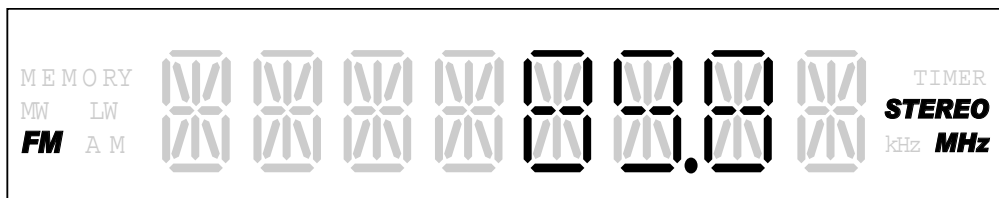
## Output from the tuner

To connect the audio signal from the tuner to an amplifier it is necessary to use a pair of cables terminated with (RCA) phono plugs. Shielded types of interconnect are better for reducing hum or other interference pick-up, but unshielded typed like DNM will produce a better sonic performance.

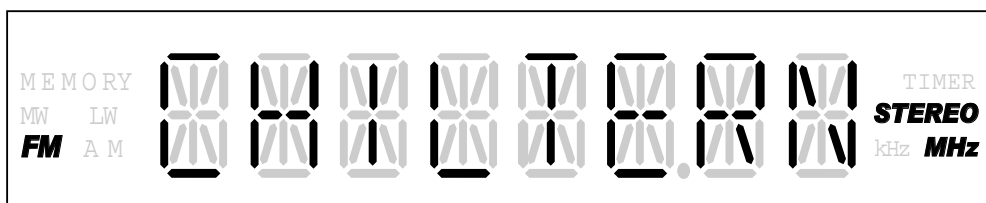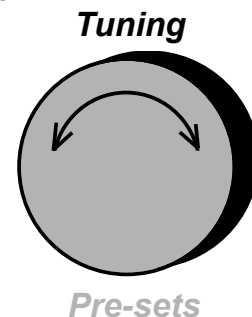Don't sacrifice quality for price in this important area.

# OPERATING THE T50
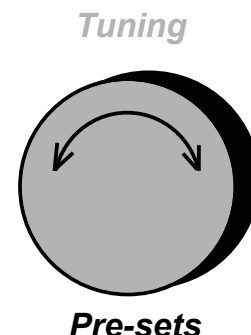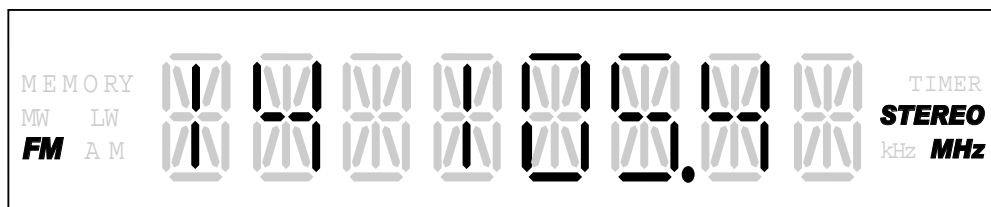# Manual and Pre-Set tuner operation

The large control knob on the right side of the panel has two functions. First, it will manually tune the radio up and down smoothly to receive stations on FM or AM displaying the frequency, band, centre tuning, and

*Tuning*

*Pre-sets*

RDS station name, if transmitted

The second function is to select Pre-Set stations from the tuner's memory, acting like a rotary switch.
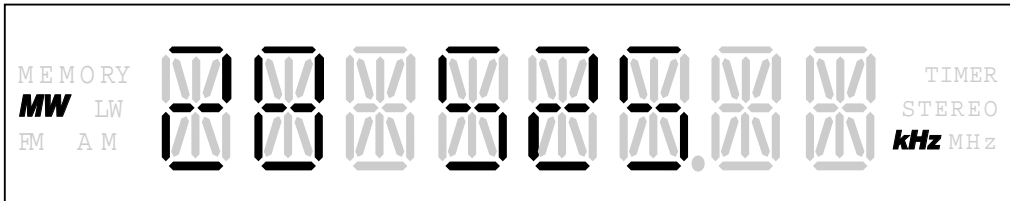
*Tuning*

*Pre-sets*

The frequency of the station will be displayed for a few seconds and may be replaced with the station ID. The Pre-Set channel will only show when the tuner is in Pre-Set mode, selected by the **MODE** button (which toggles between the two functions).

The T50 will remember the last tuned frequency, station ID or pre-set after switching off, so it can be restored when switching back on.

**NB.** The last tuned station will only be remembered if it has been left unaltered for 1 minute before switching off..
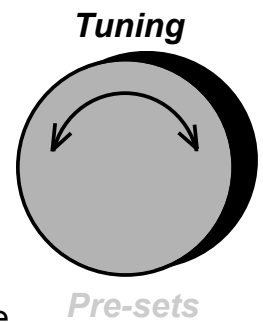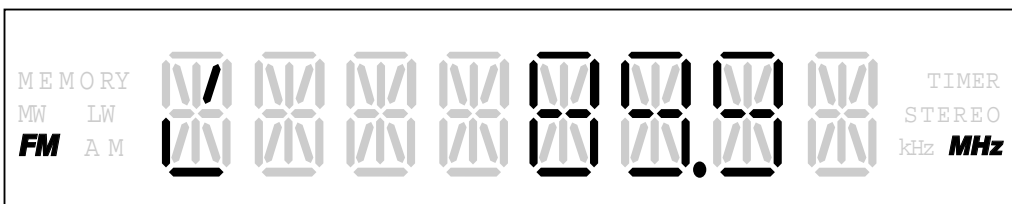
# Band selection

Two or three wave bands are available by repeatedly pressing the **BAND** button. It will toggle between FM, MW and LW, or between FM and AM, depending on the country of use.
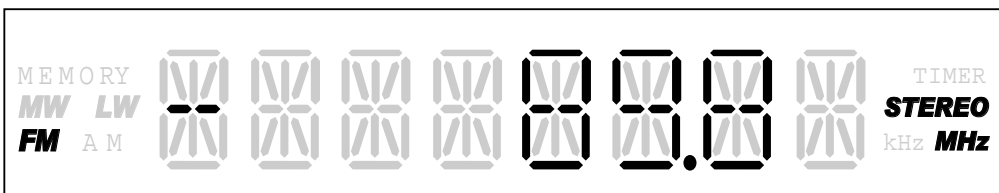
# Tuning and signal strength indicator

When tuning across the band the T50 indicates the presence of a station.

If the station is not quite tuned in, arrows indicate the way the tuning knob should be turned to obtain centre tuning and lock.

*Tuning*

*Pre-sets*

As the station is correctly tuned, the arrows change to a horizontal line.
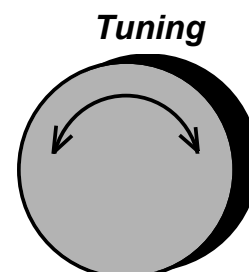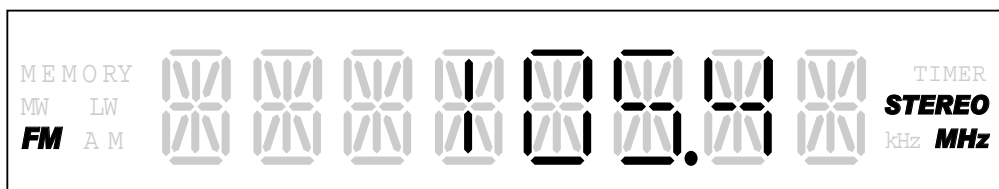
# Search Up and Search Down

Instead of tuning the radio manually with the tuning knob, **SEARCH** operation will automatically search **UP** and **DOWN** the band, looking for stations to be received with an acceptable background noise. It will stop on each one until asked to continue searching by pressing the **UP** or **DOWN** button again.

# Signal Strength

To indicate the signal level of a given station, the display brightness is adjusted from Bright (high) to Dim (low). Use a good quality roof antenna for best results.
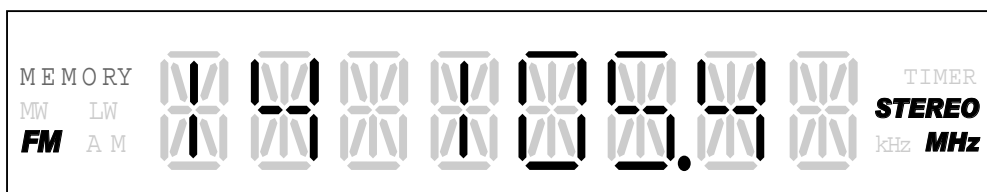
# Store and Pre-sets

To fill the T50's memory with your favoured stations, select Manual *Tuning* by pressing the **MODE** button and select the desired **BAND.** Either tune manually, or use the search **UP** button to locate the station you wish to memorise.



*Tuning*

Press the **STORE** button once, briefly. The *MEMORY* indicator on the display will flash and the *PRE-SET* number will be displayed. If you wish to store the station in this address, press the **STORE** button firmly and hold until the *MEMORY* indicator stops flashing.

*Pre-sets*



If you prefer to allocate the station a different pre-set number (1-29), turn the tuning knob until the *PRE-SET* indicator displays the desired number and then press the **STORE** button as above. The T50 will now be ready to store another station and will attempt to place it in the next consecutive pre-set number address, should you wish to do so. Repeat as necessary to store your favoured stations in the memory. Return to standard operation by pressing the **MODE** button again.

**NB**. A maximum of **99** stations can be stored in FM, **29** in MW/AM and **6** in LW (Europe only).

# Clear Station Memory

Individual stations can be over-written by selecting the pre-set number with the **TUNING/PRE-SET** knob. In order to clear all pre-sets to start again, press and hold the **MODE** button until **'CLEAR'** starts flashing. Then, release and press and hold the **MODE** button once more until **CLEAR** becomes solid. Releasing the **MODE** button will blank the display temporarily and clear the memory of all pre-sets.

**Note:** Any other button press or control knob turn or waiting more than 10 seconds whilst **CLEAR** is flashing will cancel the pending program action.

# Display

The T50 can have four levels of display brightness. The levels are set by pushing the *Display* button repeatedly until the desired level is found.
The available levels of brightness are:

1. High (Default)
2. Medium
3. Low
4. Off

The display levels are held in the memory of the T50 and will be remembered if the tuner is powered off.

If the tuner is working but there is no display, it could be that the display brightness level has been switched to off.

If any button or the tuning knob is turned, the brightness level will be briefly restored to setting no.1 and will then revert to the last setting. Remote control is not available for this function.

# REMOTE CONTROL OPERATION



Nearly every function of the tuner is available via the SRC1 Creek system remote control handset provided with the T50 tuner, with the exception of continuous Tuning & Display, which are only available from the front panel.

The six green buttons in the lower section of the handset are dedicated tuner controls. The functions these buttons provide are:

Store

Band Selection

Mode

Up

Down

Mute

Volume is controlled via the volume up/volume down buttons in the centre of the handset.

The numeric keys in the top section of the handset are for use only with CD players and do not apply to the tuner.

The TUNER button is an amplifier input selector and is only used to listen to the tuner output, like CD or AV. It is not necessary to press TUNER to be able to control the tuner, only the green buttons should be used.

# CREEK T50 SPECIFICATION

| | | | |
|---|---|---|---|
| WAVE BANDS | Worldwide | FM | 87- 108 MHz |
| | Japan | FM | 76 - 90 MHz |
| | Europe | MW/AM | 522 - 1611 kHz |
| | USA | AM | 530 - 1710 kHz |
| | Europe Only | LW | 144 - 288 kHz |
| FREQUENCY INCREMENTS | 50 KHz FM   9  kHz AM   (10kHz for America) | | |
| | 199 kHz auto        200 kHz USA | | |
| SENSITIVITY  (IHF 50dB) | < 20 µV mono,   < 100 µV FM stereo | | |
| SELECTIVITY  (IHF) | > 70 dB ± 0.4 MHz  FM | | |
| | > 60 dB ± 15 kHz   AM | | |
| NUMBER OF PRE-SETS | 99-FM          6-LW          29-AM/FM | | |
| FREQUENCY RESPONSE FM ONLY | 20 Hz to 16 kHz -1 dB | | |
| TOTAL HARMONIC DISTORTION | < 0.3% (FM),  < 3% (AM) | | |
| STEREO SEPARATION     FM only | > 30 dB | | |
| SIGNAL TO NOISE FM only | > 69 dB   (full limiting) | | |
| OUTPUT VOLTAGE | 500 mV RMS for 50 kHz deviation | | |
| AERIAL CONNECTIONS | 300 Ω  and 75 Ω  co-ax | | |
| POWER CONSUMPTION MAX | 7 VA | | |
| POWER SUPPLY VOLTGE | 220/240 V  AC  50 Hz  UK, Europe & Asia | | |
| | 100/120 V AC   60 Hz | | |
| REMOTE CONTROL PROTOCOL | RC5 (Philips) | | |
| SIZE | 43 X 6 X 25 cm    17 x 2.4 x 10" | | |
| WEIGHT | 4 Kg   -   9 lbs | | |

**MAINS VOLTAGE AND FREQUENCY IS INTERNALLY SET FOR THE COUNTRY OF USE**

*Creek Audio Ltd reserves the right to change or modify the specification of its products without prior warning.*